

ABSTRACT

A method for enhancing the stability of a water-in-oil emulsion pretreating at least a portion of the oil prior to emulsification. The pretreatment step may consist of adding polymers to the oil, biotreating the oil, photochemically treating the oil, or combinations thereof. The emulsion may be used in various enhanced oil recovery methods including using the emulsion as a flooding agent to displace hydrocarbons in a subterranean formation, and using the emulsion as a barrier fluid for diverting flow of fluids in the formation.

10